

REMARKS

This application has been amended in a manner that is believed to place it in condition for allowance at the time of the next Official Action.

Claims 16-35 are pending in the present application. Support for claims 16-35 may be found generally throughout the specification and in the original claims. In particular, support for the new claims may be found in the present specification at page 5, line 25 to page 6, line 6; page 10, lines 7-31; page 14, lines 15-28; and page 16, line 10 to page 17, line 15.

In the outstanding Official Action, claims 1-9 were rejected for allegedly being indefinite. Applicants believe the present amendment obviates this rejection.

As noted above, claims 1-9 have been canceled. Accordingly, new claims 16-35 have been added. It is believed that claims 16-35 have been drafted in a manner so as to avoid the rejection. Accordingly, applicants respectfully request that the rejection be withdrawn.

Claim 6 was rejected for allegedly not satisfying the enablement requirement. This rejection is respectfully traversed.

In imposing the rejection, the Office Action alleged that the present disclosure was enabling for a method comprising using neuraminidase, neuraminidase-producing virus or bacteria, or an antibody against CD43 sialic acid but not enabling for a

method comprising using a gene coating for neuraminidase sialic acid. However, claims 16-35 recite a step for treating the APC with an agent capable of removing sialic acid on the surface of the APC (see step C in independent claims 16 and 29). Accordingly, applicants respectfully request that this rejection be withdrawn.

Claims 1, 6 and 7 were rejected under 35 USC 102(b) as allegedly being anticipated by WEISS et al. or FANALES-BELASIO et al. These rejections are respectfully traversed.

Independent claim 16 recites the subject matters of previously pending claims 1 and 5. Accordingly, neither WEISS et al. nor FANALES-BELASIO et al. anticipate claim 16 or its corresponding dependent claims.

Claim 29 recites the subject matter of previously pending claims 1 and 4. Accordingly, applicants respectfully submit that both publications also fail to anticipate claim 29 and its corresponding dependent claims.

Claims 4 and 5 were rejected under 35 USC 103(a) as allegedly being unpatentable over FANALES-BELASIO et al. in view of FIELDS et al. Claims 8-9 were rejected under 35 USC 103(a) as allegedly being unpatentable over FANALES-BELASIO et al. in view of REESE et al. These rejections are respectfully traversed.

The FANALES-BELASIO et al. article studies how antibodies against sialophorin (CD43) may enhance the capacity of dendritic cells to cluster and activate T lymphocytes. However,

as acknowledged by the Office Action, the FANALES-BELASIO et al. publication does not teach pulsing treated dendritic cells for the cancer antigen or tumor cell lysate. Furthermore, the Official Action acknowledges that FANALES-BELASIO et al. do not teach a step of exposing immune cells to hyperthermia.

In an effort to remedy the deficiencies of the FANALES-BELASIO et al. article, the Office Action cites to FIELDS et al. and REESE et al. However, applicants believe that neither publication remedies the deficiencies of FANALES-BELASIO et al.

At the outset, neither publication suggests that the teachings of FANALES-BELASIO et al. can be successfully modified in such a manner yet still maintains the desirable properties of the cell as taught by the publication.

Furthermore, as to the FIELDS et al. article, applicants believe that one of ordinary skill in the art would lack the motivation to combine and modify the teachings of the two publications in a manner so as to obtain the claimed invention. Neither publication teaches or suggests a cell that expresses a tumor antigen while at the same time has been treated with an agent capable of removing sialic acid on the surface of the antigen presenting cell. The claimed invention is premised on the concept that using antigen presenting cells treated with an agent capable of removing sialic acid on the surface of the antigen presenting cell as "carriers" of tumor antigen at the same time triggers an inflammatory action which is initially not

tumor specific when the composition is administered to a subject. Rather, the antigen presenting cells of the invention operate as an adjuvant through the induction of an unspecific activation of the recipient's immune system. This in turn leads to the lysis of the antigen presenting cells so that their contents of tumor antigen become accessible to the immune cells of the subject being treated.

Thus, in view of the above, applicants believe that FANALES-BELASIO et al. in view of FIELDS et al. fail to render obvious the claimed invention.

Likewise, applicants believe that REESE et al. fails to render the deficiencies of FANALES-BELASIO et al. While REESE may teach exposing antigen presenting cells to heat stress, there is no recognition of providing an antigen presenting cell with the additional properties recited within the claim.

In view of the above, applicants believe that the proposed combination of FANALES-BELASIO et al. in view of REESE et al. also fails to render obvious the claimed invention.

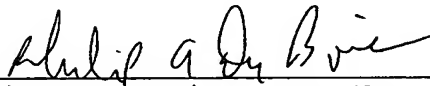
In view of the present amendment and foregoing Remarks, therefore, applicants believe the present application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



---

Philip A. DuBois, Reg. No. 50,696  
745 South 23<sup>rd</sup> Street  
Arlington, VA 22202  
Telephone (703) 521-2297  
Telefax (703) 685-0573  
(703) 979-4709

PD/fb